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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,532	10/23/2003	J. Rodney Walton	020573	2316

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EXAMINER	
TSEGAYE, SABA	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/693,532	WALTON ET AL.	
	Examiner	Art Unit	
	Saba Tsegaye	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22,24-28 and 39-41* is/are rejected.

7)☒ Claim(s) *23 and 29-38* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to the amendment filed on 5/24/06. Claims 1-41 are pending. Claims 23 and 29-38 are objected. Claims 1-22, 24-28 and 39-41 are rejected.

Claim Rejections - 35 USC § 102

2. Claims 1-11, 15-22, 24-28 and 39-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Myles et al. (US 6,879,579 B1).

Regarding claims 1, 15, 39 and 40, Myles discloses a method of accessing a wireless multiple-access communication system, comprising:

determining a current operating state of a terminal (registered or unregistered (column 8, lines 23-26));

selecting one contention-based random access channel from among at least two contention-based random access channels based on the current operating state (selecting form a plurality of channels based on "an empty-state", "a reserved-state", or "an owner-state" column 4, lines 55-60); and

transmitting a message on the selected random access channel to access the system (a mobile station transmits messaged based on "an empty-state", "a reserved-state", or "an owner-state).

Regarding claim 2, Myles discloses the method wherein the at least two random access channel include a first random access channel used by registered terminals for system access

(registered terminals access the system using modified R-ALOHA protocol (column 11, lines 9-16)) and a second random access channel used by registered and unregistered terminals for system access (empty-state; any mobile station with queued data units is allowed to contend for access the system using a slotted ALOHA).

Regarding claims 3 and 25, Myles discloses the method, wherein transmissions on the first random access channel are compensated for propagation delay (column 9, lines 51-62).

Regarding claim 4, Myles discloses the method wherein the current operating state is indicative of whether or not the terminal has registered with the system (column 8, lines 40-44).

Regarding claims 5, 16 and 20, Myles discloses the method of claim 1, wherein the current operating state is indicative of whether or not the terminal can compensate for propagation delay to an access point receiving the message (see fig. 10; column 9, lines 51-62).

Regarding claims 6-8, Myles discloses that users are informed interference via a feedback channel, and if interference has occurred, the packet is retransmitted after a random time delay (see figs. 11b-c; column 8, lines 45-50).

Regarding claim 9, the method of claim 1, wherein the transmitting includes selecting a slot from among a plurality of slots available for the selected random access channel, and transmitting the message in the selected slot (column 13, lines 1-10).

Regarding claims 10 and 11, the method of claim 1, wherein the message includes an identifier for the terminal (see fig. 9).

Regarding claims 17, 24 and 41, Myles discloses transmitting packets of information from a first transceiver to a second transceiver by using a contention method (a slotted ALOHA and R-ALOHA), comprising:

processing a first contention-based random access channel terminals to access the system (registered terminals access the system using modified R-ALOHA protocol (column 11, lines 9-16)); and

processing a second random access channel used by registered and unregistered terminals to access the system (empty-state; any mobile station with queued data units is allowed to contend for access the system using a slotted ALOHA).

Regarding claim 18, Myles discloses the method wherein the processing for each of the first and second random access channels includes detecting for presence of transmissions on the random access channel (column 1, line 39-49).

Regarding claim 19, Myles discloses the method wherein the detecting is base on a pilot that is included in each transmission on the first and second random access channels (column 12, lines 7-12).

Regarding claims 21 and 22, Myles discloses wherein transmissions on the first random access channel are compensated for propagation delay, and wherein the processing the first random access channel includes detecting for presence of a transmission in each of a plurality of slots available for the first random access channel (see fig. 10; column 9, lines 51-62).

Regarding claim 26, Myles discloses the random access channel wherein the first and second random access channels are associated with first and second segments, respectively, in a frame (column 2, lines 20-24; column 8, lines 13-17).

Regarding claim 27, Myles discloses the random access channel wherein the first and second segments are configurable for each frame (column 8, lines 13-17).

Regarding claim 28, Myles discloses the random access channel wherein each of the first and second segments is divided into a plurality of slots (column 2, lines 20-24; column 8, lines 13-17).

Claim Rejections - 35 USC § 103

3. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Myles.

Regarding claim 14, Myles discloses all the claim limitations as stated above. However, Myles does not expressly disclose that the multiple-access communication system uses OFDM.

It would have been obvious to one ordinary skill in the art at the time the invention was made to use OFDM in the communication system of Myles. One ordinary skill in the art would

have been motivated to do this because using OFDM reduces multiple-access interference so that spectral efficiency and high data rate limits in a common wireless channel are increased.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Myles in view of du Crest et al. (US 2004/0047292).

Myles discloses all the claim limitations as stated above. Further, Myles discloses that each of the stations is assigned a unique identification. However, Myles does not expressly disclose a common identifier used by unregistered terminals.

Crest teaches that when a traffic channel shared by more than one user terminal, an identifier can determine terminal by a temporary flow identity. This identifier survives only for the duration of the channel, i.e. it does not code for the user terminal uniquely but is merely used to identification of messages to or from a particular user terminal for the time period of the respective channel transmission (0057).

It would have been obvious to one ordinary skill in the art at the time the invention was made to use the teachings from Crest of using a common identifier in the system of Myles. One of ordinary skill in the art would have been motivated to do this because using a common identifier allows reusing and sharing the same identifier.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Myles in view of Caldwell (US 2002/0122393).

Myles discloses all the claim limitations as stated above, except for multiple-access communication system supports terminal with multiple antennas.

Caldwell teaches in Fig. 1, a mobile terminal that comprises two antennas 12 and 26. It would have been obvious to one ordinary skill in the art at the time the invention was made to use the teachings from Caldwell of using multiple antennas in the system of Myles. One of ordinary skill in the art would have been motivated to do this because multiple antennas allows the mobile terminals to measure the quality of signal reception by each of the two antennas and selects the one of the at least two antennas providing the better quality of signal reception.

Allowable Subject Matter

6. Claims 23, 29-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to claims 1-41 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on (571) 272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ST
August 20, 2006

DORIS H. TO
SUPERVISORY PATENT EXAMINER
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